

### **REMARKS**

The Office rejects claims 1-7 in the subject application. No claims are amended. Claims 1-7 (3 independent claims; 7 total claims) remain pending in the application.

The Office objects to FIG. 1, because each element in FIG. 1 does not have a label. Applicant has amended FIG. 1 with the attached amended FIG. 1 to include a label for the elements.

Support for the various amendments may be found in the originally filed specification, claims, and figures. No new matter has been introduced by these amendments. Reconsideration of this application is respectfully requested.

### **35 U.S.C. § 112 REJECTIONS**

Claims 1-7 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection.

The Office assumes that the term "aggregation" in the subject application is synonymous with the term "cluster" as used in the art. The Office allegedly contrasts these terms with a statistical measure (such as a summation or averaging). The Office alleges that it is not clear whether the term "aggregation" in the subject application is synonymous with the term "cluster" as used in the art, but the Office assumes that these terms are intended to be equivalent (the Office assumes that "aggregation" is intended to be equivalent to "clustering").

However, the Office's assumption is incorrect. As commonly used in the art, the term "cluster" generally refers to an amount of disk/file space. See attached web page from FREE ON-LINE DICTIONARY OF COMPUTING. As commonly used in the art, the term "clustering" generally refers to limiting the number of listings per website to a couple of links. See attached web page from NETLINGO DICTIONARY OF INTERNET WORDS. In the subject application, the term "aggregation" is not necessarily cluster or clustering. For example, the subject application describes the value of the node being updated simultaneously with the addition of the contents of the input records to the hierarchical tree. The "aggregation" result is described in this example as follows:

The aggregation result for each item of the key parameter is obtained as a value of the node on a specific hierarchical level. Thus, even a huge number of

records can be instantaneously aggregated. (See subject application , page 15, line 30 to page 16, line 3).

Accordingly, the term “aggregation” as used in this example of the subject application refers to the summation meaning of aggregation. This summation or addition meaning is further illustrated in the subject application on page 12, line 31 to page 13, line 2 as follows:

Step S5: The value of at least one node added to the hierarchical tree and a value of each of the nodes on the levels higher than that of the at least one node are updated by a numerical value included in the input record...

Thus, the term “aggregation” as used in the foregoing examples is in the context of summation or addition. Thus, the term “aggregation” in the subject application is not defined by the terms “cluster” or “clustering” as assumed by the Office. Therefore, the claims of the subject application should not be read to recite such a limitation.

Accordingly, based on the foregoing, claims 1-7 comply with 35 U.S.C. § 112 (second paragraph). Thus, Applicant respectfully requests withdrawal of this rejection.

### **35 U.S.C. § 103 REJECTIONS**

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bader, U.S. Patent No. 5,467,471, issued November 14, 1995 (“Bader”) in view of Aoki et al., U.S. Patent No. 6,078,913, issued June 20, 2000 (“Aoki”). Applicant respectfully traverses the rejection.

Bader discloses a system for maintaining databases using a hierarchical genealogical table. A number of records of information are maintained on a computer in a hierarchical database. Each information record in the database has a unique identifier (i.e., record identifier). Two elements are needed to implement the Bader system: a null value and each record’s genealogy. The null value must be lower than the value of all the record identifiers. The genealogy of each record is determined using pointers. See Bader, Column 4, line 42 to Column 5, line 20. An index structure is necessary to point to one or more record identifiers. The index structure indicates attributes of records in the hierarchy with keys (or keywords). Each record is indexed with a keyword value. For example, a keyword of “Company” is set equal to a keyword value of “Acme Distributing”. See Bader, Column 6, lines 19-39.

Aoki discloses a document retrieval apparatus. Figure 3 of Aoki discloses a resource discovering engine 129, which automatically collects document index information. The collected document index information is stored to track any updates of any of the documents. See Aoki, Column 6, lines 52-60.

The Office concedes that Bader does not implicitly disclose a method of adding nodes to the tree. The Office argues that adding at least one node is inherent. The Office argues that “aggregation” is equivalent to “clustering”, so that Aoki discloses aggregation by disclosing clustering. However, as discussed above, aggregation is not equivalent to clustering, so that the Office’s argument is based upon a false premise. As further discussed above, the aggregation result for each item of the key parameter is obtained as a value of the node on a specific hierarchical level, so that even a huge number of records can be instantaneously aggregated. See subject application , page 15, line 30 to page 16, line 3. However, Bader and Aoki fail to recognize this advantage, and consequently fail to address it.

Bader in view of Aoki fails to teach, advise, or suggest “updating a value of the at least one node added to the hierarchical tree and a value of a node on a level higher than that of the at least one node, in accordance with the numerical value included in the input record” as recited in claims 1, 4, and 7 (and claims 2, 3, 5, and 6, which variously depend from claims 1, 4, and 7). Bader indicates that each record is indexed with a keyword value, so that “adding at least one node” (or otherwise changing the keyword value) would make the keyword value inoperable for its intended use, namely to index. Aoki is merely for tracking documents and does not make up for the shortcomings of Bader. Aoki discloses a resource discovering engine 129 in Figure 3, which has a frequency table stored in the node information element of a database. See Aoki, Column 6, lines 61-67. However, Aoki fails to teach, advise, or suggest “updating a value of the at least one node added to the hierarchical tree and a value of a node on a level higher than that of the at least one node, in accordance with the numerical value included in the input record” as recited in claims 1, 4, and 7 (and claims 2, 3, 5, and 6, which variously depend from claims 1, 4, and 7). The “update” in Aoki is an update operation for a cluster, which is executed by comparing the frequency table with the frequency tables of child node information elements. Accordingly, the update operation for a cluster in Aoki is not ““updating a value of the at least one node added to the hierarchical tree and a value of a node on a level higher than that of the at least one node” as recited in claims 1, 4, and 7.

Thus, the combination of Bader in view of Aoki is missing one or more claimed limitations and fails to recognize and consequently address one or more advantages of the claimed invention. Accordingly, Bader in combination with Aoki fails to teach, advise, or suggest one or more of the missing claimed elements. Furthermore, "The factual inquiry whether to combine references must be thorough and searching".<sup>1</sup> "It must be based on objective evidence of record".<sup>2</sup> "This precedent has been reinforced in myriad decisions, and cannot be dispensed with".<sup>3</sup> Accordingly, Applicant submits that the cited art of record contains no teaching, suggestion, or motivation to combine the references as proposed by the Office.<sup>4</sup> Regardless, in light of the foregoing, the combination fails to teach, advise, or suggest the missing claimed elements.

### **CONCLUSION**

Thus, the Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application is thus requested. Applicant invites the Office to telephone the undersigned if he or she has any questions whatsoever regarding this Response or the present application in general.

Respectfully submitted,

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<sup>1</sup> In re Sang Su Lee, 277 F.2d 1338, 1342, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d (BNA) 1001, 1008 (Fed. Cir. 2001)).

<sup>2</sup> In re Sang Su Lee at 1342.

<sup>3</sup> Id. (citing Brown & Williamson Tobacco Corp. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d (BNA) 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" quoting C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 U.S.P.Q.2d (BNA) 1225, 1232 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d (BNA) 1614, 1617 (Fed. Cir. 1999)).

<sup>4</sup> See ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed. Cir. 1984) (teachings of the prior art can be combined to show obviousness only if there is some suggestion or teaching to do so).

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cluster

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## cluster

<file system> An elementary unit of allocation of a disk made up of one or more physical blocks.

A file is made up of a whole number of possibly non-contiguous clusters. The cluster size is a tradeoff between space efficiency (the bigger is the cluster, the bigger is on the average the wasted space at the end of each file) and the length of the FAT.

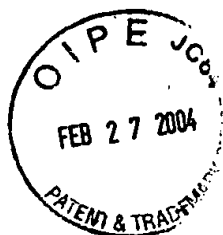
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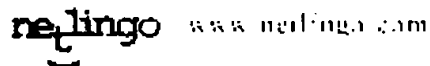
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## clustering

In search engine results, it is to restrict the number of listings per Web site to only one or two links.

**NetLingo Classification:** Technical Term



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